

EXHIBIT 1

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

| | | |
|------------------------------|---|--------------------------|
| NETLIST, INC., |) | |
| |) | |
| Plaintiff, |) | |
| |) | Case No. 2:22-cv-293-JRG |
| vs. |) | |
| |) | JURY TRIAL DEMANDED |
| SAMSUNG ELECTRONICS CO, LTD; |) | (Lead Case) |
| SAMSUNG ELECTRONICS AMERICA, |) | |
| INC.; SAMSUNG SEMICONDUCTOR |) | |
| INC., |) | |
| |) | |
| Defendants. |) | |

| | | |
|---------------------------------|---|--------------------------|
| NETLIST, INC., |) | |
| |) | |
| Plaintiff, |) | |
| |) | Case No. 2:22-cv-294-JRG |
| vs. |) | |
| |) | JURY TRIAL DEMANDED |
| MICRON TECHNOLOGY, INC.; MICRON |) | |
| SEMICONDUCTOR PRODUCTS, INC.; |) | |
| MICRON TECHNOLOGY TEXAS LLC, |) | |
| |) | |
| Defendants. |) | |

**PLAINTIFF NETLIST INC.'S DISCLOSURE OF ASSERTED CLAIMS
AND INFRINGEMENT CONTENTIONS**

Plaintiff Netlist, Inc. ("Netlist") submits this disclosure of asserted claims and infringement contentions and accompanying document production pursuant to P.R. 3-1 and 3-2 to Defendants Samsung Electronics Co., Ltd. ("SEC"), Samsung Electronics America, Inc. ("SEA"), and Samsung Semiconductor, Inc. ("SSI") with respect to U.S. Patent Nos. 7,619,912 (the "912 patent"), 11,093,417 (the "417 patent"), and 9,858,215 (the "215 patent").

Netlist notes that these preliminary infringement contentions are based on publicly available information. Netlist's statements are based on an analysis of publicly available materials that describe or discuss aspects of Samsung's infringement, without having received any discovery from Samsung. Discovery has not begun, and Netlist's infringement contentions, including all claim charts, are based on information reasonably available to Netlist at this time. Netlist expects that information to be revealed in future discovery may result in identification of additional instances of Samsung's infringement, and may also enable identification of additional claims infringed by Samsung. Netlist reserves the right to supplement or amend these contentions as permitted by the Local Rules and any Orders of the Court as discovery progresses.

Further, these contentions contain images and examples illustrating Netlist's infringement theories. These images and examples are not intended, and should not be read, as narrowing or limiting the scope of these contentions. For each asserted claim, the corresponding accused instrumentalities operate in the same manner in material parts.

I. INFRINGEMENT OF THE ASSERTED PATENTS

A. Identification of Infringed Claims

In accordance with P. R. 3-1(a), based on the public information presently available, Netlist asserts that Samsung has infringed and is infringing, directly and/or indirectly,¹ both literally and under the doctrine of equivalents, at least the following claims:

- the '912 patent: 1, 3, 4, 6, 8, 10, 11, 15, 16, 18, 19, 20, 22, 24, 27, 28, 29, 31, 32, 34, 36, 37, 38, 39, 40, 41, 43, 45, 46, 47, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 69, 70, 71, 72, 73, 74, 75, 77, 80-91;

¹ Netlist's infringement allegations for each of the patents addressed in this disclosure include, without limitation, infringement under 35 U.S.C. §§ 271(a)-(c), and (f).

- the '417 patent: 1-15;
- the '215 patent: 1-29.

Netlist makes these preliminary assertions without the benefit of discovery, and expressly reserves the right to supplement and revise its identification of asserted claims and infringing instrumentalities based on additional information obtained through discovery or otherwise to the full extent consistent with the Court's rules and orders. For example, review of pertinent physical samples, source code, HDL code, electronic schematics, circuit diagrams, data sheets and manuals may result in the addition of asserted claims.

B. Identification of Accused Instrumentalities

Pursuant to P.R. 3-1(b), Netlist presently identifies the following Samsung products, of which Netlist is aware, as "Accused Instrumentalities" under all applicable subsections of 35 U.S.C. § 271 with respect to each asserted claim as follows:

| Asserted Claims | Accused Instrumentalities |
|---------------------------|--|
| The '912 patent: Claim 16 | <p>Samsung's DDR4 load reduced DIMMs ("LRDIMMs") and DDR4 registered DIMMs ("RDIMMs") and any other Samsung memory products that operate the same way as a DDR4 LRDIMM or DDR4 RDIMM in all material aspects. By way of non-limiting examples, the accused DDR4 RDIMM products include, without limitation, Samsung products having the following part numbers:</p> <p>M393AAG40M32-CAE, M393ABG40M52-CAE, M393A1K43DB2-CWE, M393A2K40DB3-CWE, M393A2K43DB3-CWE, M393A4K40DB3-CWE, M393A1K43DB1-CVF, M393A1K43DB1-CWE, M393A2K40DB2-CTD, M393A2K40DB2-CVF, M393A2K40DB2-CWE, M393A2K43DB2-CTD, M393A2K43DB2-CVF, M393A2K43DB2-CWE, M393A4G40AB3-CVF, M393A4G40AB3-CWE, M393A4G43AB3-CVF, M393A4G43AB3-CWE, M393A4K40DB2-CTD, M393A4K40DB2-CVF, M393A4K40DB2-CWE, M393A8G40AB2-CVF, M393A8G40AB2-CWE, M393AAG40M3B-CYF, M393ABG40M5B-CYF, M393A8G40MB2-CTD, M393A8G40MB2-CVF, M393AAG40M32-CYF.</p> |

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| | <p>M393ABG40M52-CYF, M393A2K40CB2-CVF, M393A2K43CB2-CVF, M393A4K40CB2-CVF, M393A8K40B2B-CTC, M392A2G40DM0-CPB, M393A1G40DB0-CPB, M393A1G40DB1-CRC, M393A1G40EB1-CPB, M393A1G40EB1-CRC, M393A1G40EB2-CTD, M393A1G43DB0-CPB, M393A1G43DB1-CRC, M393A1G43EB1-CPB, M393A1G43EB1-CRC, M393A1G43EB1-CTD, M393A1K43BB0-CPB, M393A1K43BB0-CRC, M393A1K43BB1-CTD, M393A2G40DB0-CPB, M393A2G40DB1-CRC, M393A2G40EB1-CPB, M393A2G40EB1-CRC, M393A2G40EB2-CTD, M393A2K40BB0-CPB, M393A2K40BB1-CRC, M393A2K40BB2-CTD, M393A2K40CB1-CRC, M393A2K40CB2-CTD, M393A2K43BB1-CPB, M393A2K43BB1-CRC, M393A2K43BB1-CTD, M393A2K43CB1-CRC, M393A2K43CB2-CTD, M393A4K40BB0-CPB, M393A4K40BB1-CRC, M393A4K40BB2-CTD, M393A4K40CB1-CRC, M393A4K40CB2-CTD, M393A5143DB0-CPB, M393A5143DB0-CRC, M393A8G40D40-CRB, M393A8K40B21-CRB, M393A8K40B21-CTC, M393A8K40B22-CWD, M393AAK40B41-CTC, M393AAK40B42-CWD.</p> <p>The Accused Instrumentalities also include any other Samsung DDR4 LRDIMM products made, sold, offered for sale, imported and/or used by Samsung that are JEDEC-standard compliant memory modules, including but not limited to the following:</p> <p>M386A4K40BB0-CRC, M386A8K40BM1-CPB, M386A8K40BM1-CRC, M386A8K40BM2-CTD, M386A8K40BMB-CPB, M386A8K40BMB-CRC, M386A8K40CM2-CRC, M386A8K40CM2-CTD, M386A8K40CM2-CVF, M386A8K40DM2-CTD, M386A8K40DM2-CVF, M386A8K40DM2-CWE, M386AAG40AM3-CWE, M386AAG40MM2-CVF, M386AAG40MMB-CVF, M386AAK40B40-CUC, M386AAK40B40-CWD, M386ABG40M50-CYF, M386ABG40M51-CAE, M386ABG40M5B-CYF.</p> <p>The Accused Instrumentalities also include any other Samsung memory products made, sold, imported and/or used by Samsung that comply with JEDEC's specifications for DDR4 LRDIMM or DDR4 RDIMM memory modules. Examples of Samsung's DDR4 LRDIMM and DDR4</p> |
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| | RDIMM products can be found via Samsung products web page. |
| The '912 patent: Claims 1, 3, 4, 6, 8, 10, 11, 15, 18, 19, 20, 22, 24, 27, 28, 29, 31, 32, 34, 36, 37, 38, 39, 40, 41, 43, 45, 46, 47, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 69, 70, 71, 72, 73, 74, 75, 77, 80-91 | <p>Samsung's DDR2 SDRAM Fully Buffered DIMM (FBDIMM) and any other Samsung memory products that operate in substantially the same way as a DDR2 FBDIMM.</p> <p>Samsung's DDR3 Load Reduced Dual In-Line Memory Modules ("LRDIMMs") and any other Samsung memory products that operate in substantially the same way as a DDR3 LRDIMM.</p> <p>The Accused Instrumentalities further include Samsung's DDR2 memory modules, unbuffered or buffered, whether made, sold, offered for sale, imported and/or used by Samsung, that utilize on-module logic to perform rank multiplication that produces more chip select signals than it receives from a host, hence having the ability to have a number of ranks that is greater than the number of input chip select lines from the host.</p> <p>The Accused Instrumentalities further include Samsung's DDR3 memory modules, whether unbuffered or buffered, including registered DIMMS (RDIMMs), whether made, sold, offered for sale, imported and/or used by Samsung, that utilize on-module logic to perform rank multiplication that produces more chip select signals than it receives from a host, hence having the ability to have a number of ranks that is greater than the number of input chip select lines from the host.</p> |
| The '417 patent: Claims 1-15 | <p>Samsung's DDR4 LRDIMMs and any other Samsung memory products that operate the same way as a DDR4 LRDIMM in all material aspects</p> <p>By way of non-limiting example, the accused DDR4 LRDIMM products include, without limitation, Samsung products having the following part numbers: M386A4K40BB0-CRC, M386A8K40BM1-CRC, M386A8K40BM2-CTD, M386A8K40BMB-CRC, M386A8K40CM2-CRC, M386A8K40CM2-CTD, M386A8K40CM2-CVF, M386A8K40DM2-CTD, M386A8K40DM2-CVF, M386A8K40DM2-CWE, M386AAG40AM3-CWE, M386AAG40MM2-CVF, M386AAG40MMB-CVF, M386AAK40B40-CUC, M386AAK40B40-CWD, M386ABG40M50-CYF,</p> |

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| | <p>M386A8K40BMB-CPB, M386A8K40BM1-CPB, M386ABG40M51-CAE, and M386ABG40M5B-CYF.</p> <p>The Accused Instrumentalities also include any other Samsung DDR4 LRDIMM products made, sold, offered for sale, imported and/or used by Samsung that are JEDEC-standard compliant memory modules.</p> <p>The Accused Instrumentalities also include any other Samsung memory products made, sold, imported and/or used by Samsung that comply with JEDEC's specifications for DDR4 LRDIMM memory modules. Examples of Samsung's DDR4 LRDIMM products can be found via Samsung products web page.</p> |
| The '215 patent: Claims 1-29 | <p>Samsung's DDR4 LRDIMMs and any other Samsung memory products that operate the same way as a DDR4 LRDIMM in all material aspects</p> <p>By way of non-limiting example, the accused DDR4 LRDIMM products include, without limitation, Samsung products having the following part numbers: M386A4K40BB0-CRC, M386A8K40BM1-CRC, M386A8K40BM2-CTD, M386A8K40BMB-CRC, M386A8K40CM2-CRC, M386A8K40CM2-CTD, M386A8K40CM2-CVF, M386A8K40DM2-CTD, M386A8K40DM2-CVF, M386A8K40DM2-CWE, M386AAG40AM3-CWE, M386AAG40MM2-CVF, M386AAG40MMB-CVF, M386AAK40B40-CUC, M386AAK40B40-CWD, M386ABG40M50-CYF, M386A8K40BMB-CPB, M386A8K40BM1-CPB, M386ABG40M51-CAE, and M386ABG40M5B-CYF.</p> <p>The Accused Instrumentalities also include any other Samsung DDR4 LRDIMM products made, sold, offered for sale, imported and/or used by Samsung that are JEDEC-standard compliant memory modules.</p> <p>The Accused Instrumentalities also include any other Samsung memory products made, sold, imported and/or used by Samsung that comply with JEDEC's specifications for DDR4 LRDIMM memory modules. Examples of Samsung's DDR4 LRDIMM products can be found via Samsung products web page.</p> |

Additionally, the use of the above accused products by Samsung, its agents (such as retailers, distributors and repair services), and/or its customers infringes the asserted method-of-use claims. Samsung induces such direct infringement because it has knowledge of the patents, knows that the design of the accused products will cause them to be used in a manner that practices the steps of the asserted method-of-use claims, but nevertheless encourages such infringing use through its sales, promotion, and marketing activities with an intent of inducing infringement. In addition, Samsung is willfully blind to the risk of infringement. Samsung also contributes to direct infringement because it has knowledge of the patents, knows that the products have no substantially non-infringing use, and constitute a material part of the patented invention. Samsung had knowledge of the '912 patent no later than July 6, 2021, when it received a request for indemnification from Google LLC ("Google") in connection with Netlist's assertion of the '912 patent against Google in *Netlist, Inc. v. Google LLC*, No. 3:09-cv-05718 (N.D. Cal.). *Samsung Elec. Co. Ltd. et. al. v. Netlist, Inc.*, No. 21-cv-1453-RGA, Dkt. 14, ¶ 43 (D. Del. Jan. 18, 2022).

Samsung had knowledge of the '417 patent via notice of U.S. Patent Application No. 16/695,020 on August 2, 2021 through Samsung's access to Netlist's patent portfolio docket. Samsung has also gained knowledge of the '417 patent via this First Amended Complaint.

Samsung had knowledge of the '215 patent no later than August 2, 2021 via its access to Netlist's patent portfolio docket. Samsung has also gained knowledge of the '215 patent via this First Amended Complaint.

Further details can be found in the attached Exhibits A-C.

Netlist believes that its damages for Samsung's infringement may accrue on a worldwide basis, including worldwide manufacturing, uses, sales, offers to sell, and imports, to the extent permitted by applicable law or any stipulation the parties are able to reach

regarding United States nexus. *See, e.g., Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 1306-11 (Fed. Cir. 2015).

Discovery in this matter has not begun and Netlist makes these preliminary assertions without discovery yet occurring in this action, and expressly reserves the right to supplement and revise its identification of asserted claims and infringing instrumentalities based on additional information obtained through discovery or otherwise.

C. Preliminary Infringement Claim Charts

Pursuant to P.R. 3-1(c), Netlist provides the attached charts that identify where each limitation of each asserted claim is found in representative proof for each of the Accused Instrumentalities:

- The '912 patent: Netlist contends that the Accused Instrumentalities and any of Samsung's other products incorporating a design substantially similar to that of the Accused Instrumentalities, infringe the '912 patent for the reasons set forth in Exhibits A-1, A-2, and A-3.
- The '417 patent: Netlist contends that the Accused Instrumentalities and any of Samsung's other products incorporating a design substantially similar to that of the Accused Instrumentalities, infringe the '417 patent for the reasons set forth in Exhibit B.
- The '215 patent: Netlist contends that the Accused Instrumentalities and any of Samsung's other products incorporating a design substantially similar to that of the Accused Instrumentalities, infringe the '215 patent for the reasons set forth in Exhibit C.

Non-limiting examples and illustrations are used to illustrate the application of the claims to the Accused Instrumentalities. Netlist believes that for each asserted claim, the associated Accused Instrumentalities operate in the same or substantially the same manner in all material aspects. Netlist accuses products having the same or substantially the same

structures and/or features identified in the representative claim charts and exhibits. Netlist reserves the right to identify additional Accused Instrumentalities, names and model numbers, particularly in light of further discovery.

These infringement contentions provide examples of infringement that illustrate Netlist's infringement theories. However, the examples are non-limiting and are included to assist in understanding Netlist's infringement theories. For example, details regarding how the Accused Instrumentalities implement the asserted claims may vary from instrumentality to instrumentality in ways not material to the analysis of the asserted claims. The specific instrumentalities selected for the most detailed discussions in the attached claim charts are, as explained in the charts themselves and as further addressed in this document, to be understood as representative of other instrumentalities with structures, operation, or other charted characteristics that do not differ from the charted instrumentalities in ways material to Netlist's theories of infringement for the charted claims.

Moreover, Netlist's citation of portions of a document herein should not be interpreted to limit Netlist's infringement proof in expert reports or at trial. Netlist's citation of portions of a document or use of illustrations herein provide detailed notice of Netlist's theory of infringement, but Netlist intends to rely on additional evidence including, but not limited to, data sheets, design specifications, source code, testing information, reference designs, implementation and utilization information, and schematics as proof of infringement in expert reports and at trial.

Further, the attached infringement claim charts are based only on currently available information regarding Samsung's instrumentalities. Therefore, additional patents, claims, and infringement claim charts may become applicable as information regarding Samsung's instrumentalities is acquired through the discovery process and otherwise. Netlist expressly

reserves the right to supplement and revise its infringement contentions and charted information as discovery progresses.

D. Literal Infringement and Doctrine of Equivalents

In accordance with P. R. 3-1(d), unless explicitly stated otherwise in the infringement charts, Netlist alleges that each element of each asserted claim of the Asserted Patents is literally present in the Accused Instrumentalities.

To the extent that, in the future, any differences are alleged to exist between the asserted claims and the Accused Instrumentalities, such differences are expected to be insubstantial—the Accused Instrumentalities perform exactly or substantially the same function as recited in the claims, in exactly or substantially the same way as recited in the claims, to yield exactly or substantially the same result as contemplated by the claims. Furthermore, because the structure and functionality provided by Samsung is being used to satisfy the limitations, there is no claim vitiation. Thus, should the Court find any of the claim elements not satisfied literally, the Accused Instrumentalities would still infringe under the doctrine of equivalents.

Discovery in this matter is ongoing and Netlist makes these preliminary assertions without discovery yet occurring in this action, and expressly reserves the right to supplement and revise its contentions regarding infringement under the doctrine of equivalents based on additional information obtained through discovery or otherwise.

E. Statement of Earliest Priority Date

Pursuant to P.R. 3-1, the identified claims of the '912 patent claim priority to three provisional applications: Nos. 60/588,244 filed on July 15, 2004 60/550,668 filed on March 5, 2004, and 60/575,595 filed on May 28, 2004. The '912 patent also claims priority to

application, filed July 1, 2005, now U.S. Patent No. 7,289,386, which is a continuation-in-part of application No. 11/075,395, filed March 7, 2005, now U.S. Patent No. 7,286,436.

The identified claims of the '417 patent claim priority to five provisional applications: Nos. 60/645,087, filed on January 19, 2005, 60/590,038, filed on July 21, 2004, 60/588,244 filed on July 15, 2004, 60/550,668 filed on March 5, 2004, and 60/575,595 filed on May 28, 2004

The identified claims of the '215 patent claim priority to five provisional applications: Nos. 60/645,087, filed on January 19, 2005, 60/590,038, filed on July 21, 2004, 60/588,244 filed on July 15, 2004, 60/550,668 filed on March 5, 2004, and 60/575,595 filed on May 28, 2004.

The subject matter described by the asserted claims, however, may have been conceived and reduced to practice prior to this priority date. Netlist's investigation is ongoing and Netlist reserves the right to assert that the claims are entitled to an invention date that is earlier than the above dates.

F. Identification of Instrumentalities Embodying the Asserted Patents

Netlist's investigation under P. R. 3-1(f) is ongoing. Pending Netlist's further investigation, including third-party discovery, Netlist reserves its right to supplement this identification as its investigation proceeds.

II. P.R. 3-2 Production Number

Netlist identifies the productions as follows:

| Category | Production Range |
|-----------------|---|
| 3-2(a) | Netlist is not aware of any documents specified by paragraph 3-2(a). Netlist's investigation is ongoing and therefore Netlist reserves the right to supplement its document production as additional responsive information is located. |

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| 3-2(b) | Netlist is not aware of any documents specified by paragraph 3-2(b). Netlist's investigation is ongoing and therefore Netlist reserves the right to supplement its document production as additional responsive information is located. |
| 3-2(c) | NL-MS-293_00000001 – NL-MS-293_00056063 |

Dated: November 17, 2022

Respectfully submitted,

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